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\*\*\* YOU HAVE NEW MAIL \*\*\*

=> s alpha 2B (2a) adrenergic receptor L1 265 ALPHA 2B (2A) ADRENERGIC RECEPTOR

=> s l1 and target

L2 37 L1 AND TARGET

=> s 12 and ligand

L3 29 L2 AND LIGAND

=> s alpha 2B (2a) adrenergic receptor?(10a) therap?
L4 0 ALPHA 2B (2A) ADRENERGIC RECEPTOR?(10A) THERAP?

=> s alpha 2B (2a) adrenergic receptor? (15a) therap?

L5 1 ALPHA 2B (2A) ADRENERGIC RECEPTOR? (15A) THERAP?

=> d 15 bib abs

L5 ANSWER 1 OF 1 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

AN 2002-619081 [66] WPIDS

DNC C2002-174840

TI Agent for treating pain such as neuropathic pain comprises a therapeutic component and a targeting component.

DC B04 B05

IN AOKI, K R; GIL, D W

PA (ALLR) ALLERGAN SALES INC

CYC 96

PI WO 2002053177 A2 20020711 (200266)\* EN 76p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

ADT WO 2002053177 A2 WO 2001-US48651 20011214

PRAI US 2000-751053 20001229

AN 2002-619081 [66] WPIDS

AB WO 200253177 A UPAB: 20021014

NOVELTY - An agent comprises a therapeutic component (a) and a

L7

L8

AN

DN

TI

IN

PA

SO

DT

LA

PΙ

OS

PRAI US 2000-751053

MARPAT 137:73273

```
targeting component (b), where the targeting component selectively binds
     at the alpha -2B/ alpha -C adrenergic
     receptor subtype as compare to the alpha -2A adrenergic receptor
     subtype.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
     making the agent involving producing a polypeptide from a gene having
     codes for at least one component of the agent.
          ACTIVITY - Analgesic; Cytostatic; Antiinflammatory.
          MECHANISM OF ACTION - alpha -2B adrenergic receptor binder;
     Alpha-2B/alpha-2C adrenergic receptor binder.
          USE - The novel therapeutic agent is used for treating pain such as
     chronic pain, visceral pain, neuropathic pain, referred pain and allodynia
     type pain (persisting from 2 - 27 months) without affecting acute pain
     sensation or tactile sensation such as chronic pain, visceral pain,
     neuropathic pain, referred pain and allodynia type pain (claimed) and for
     treating pain associated with cancer and irritable bowel syndrome.
          ADVANTAGE - (b) selectively binds at the alpha -2B or alpha -2B/
     alpha 2B- alpha -2C adrenergic receptor subtypes(s) as compared to the
     alpha -2A adrenergic receptor subtype. (a) inactivates cellular ribosomes.
     Dwg.0/1
=> s alpha 2B (2a) adrenergic receptor? (20a) ligand?
           13 ALPHA 2B (2A) ADRENERGIC RECEPTOR? (20A) LIGAND?
=> s 16 not 15
           13 L6 NOT L5
=> dup rem 17
PROCESSING COMPLETED FOR L7
              8 DUP REM L7 (5 DUPLICATES REMOVED)
=> d 18 bib abs 1-8
     ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
     2002:521523 CAPLUS
     137:73273
     Adrenergic receptor ligand-neurotoxin conjugates and methods for treating
     Gil, Daniel W.; Aoki, Kei Roger
     Allergan Sales, Inc., USA
     PCT Int. Appl., 76 pp.
     CODEN: PIXXD2
     Patent
    English
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
     ·····
                                          -----
    WO 2002053177
                     A2 20020711
                                         WO 2001-US48651 20011214
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            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
            VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
```

AΒ Agents for treating pain, methods for producing the agents, and methods for treating pain by administration to a patient of a therapeutically

20001229

Α

effective amt. of the agent, are disclosed. The agent may include a clostridial neurotoxin, a fragment or a deriv. thereof, attached to a targeting component, wherein the targeting component is selected form a group consisting of compds. which selectively binds at the .alpha.2b or .alpha.2b/.alpha.2c adrenergic receptor subtype(s) as compared to other binding sites, e.g. the .alpha.2a adrenergic receptor subtype.

- L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 2002:213371 CAPLUS
- DN 137:138464
- TI Gender difference in diet-induced obesity hypertension: implication of renal .alpha.2-adrenergic receptors
- AU Coatmellec-Taglioni, Gwenn; Dausse, Jean-Pierre; Giudicelli, Yves; Ribiere, Catherine
- CS Department of Biochemistry and Molecular Biology, Universite Rene Descartes, Paris, Fr.
- SO American Journal of Hypertension (2002), 15(2, Pt. 1), 143-149 CODEN: AJHYE6; ISSN: 0895-7061
- PB Elsevier Science Inc.
- DT Journal
- LA English

PRAI US 1989-428856

- AΒ Although the pathogenesis of the obesity-related hypertension is not fully understood, prevalence of the cardiovascular complications is much higher in obese men than obese women. In a recent study, we reported that male rats fed a cafeteria diet, while becoming obese, developed hypertension and important changes in their renal .alpha.2-adrenergic receptor subtypes distributions. The aim of the present study was to investigate whether these alterations are sex dependent. After 10 wk of the cafeteria diet, male and female rats had the same increase in fat pad wt. and in plasma leptin levels. However, in contrast to males, females had normal blood pressure (BP). On the basis of radioligand-binding studies using [3H]-RX821002 and confirming our recent observation, an increase in .alpha.2-adrenergic receptor densities occurred in kidneys of cafeteria-fed male but not female rats. Moreover, in contrast with the situation obsd. in males, ligand competition studies failed to reveal any change in the renal .alpha.2A-and .alpha.2B -adrenergic receptors subtypes distribution in females. Finally, in the cafeteria-fed females reverse transcription-polymerase chain reaction expts. showed unaltered expression of these two .alpha.2-adrenergic receptor subtypes. These data thus suggest a strong relationship between the sexual dimorphism in the cafeteria diet-induced hypertension and altered expression of the .alpha.2-adrenergic receptor subtypes in the kidney.
- RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 8 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN DUPLICATE 1
L8
AN
     1997-107576 [10]
                        WPIDS
CR
     1991-310087 [42]
DNC C1997-034339
TΙ
     Assay for alpha-2b adrenergic
     receptor ligands - using membranes of cells expressing
     recombinant receptor.
DC
     B04 D16
IN
     HARTIG, P R; WEINSHANK, R L
PA
     (SYNA-N) SYNAPTIC PHARM CORP
CYC
    1
PΙ
    US 5595880
                  A 19970121 (199710) *
                                              16p
ADT US 5595880 A Div ex US 1989-428856 19891030, Cont of US 1991-707604
     19910530, US 1992-965040 19921022
FDT US 5595880 A Div ex US 5053337
```

19891030; US 1991-707604 19910530; US 1992-965040

- AN 1997-107576 [10] WPIDS
- CR 1991-310087 [42]
- AB US 5595880 A UPAB: 19970307

A novel method for determining if a cpd. specifically binds to human alpha 2b adrenergic receptor comprises: (a) obtaining a membrane prepn. from mammalian cells which contain an isolated nucleic acid mol. encoding the receptor and which express the encoded receptor on their cell surface; (b) contacting the cpd. with the membrane prepn. under conditions that permit binding of the cpd. to the receptor; and (c) detecting any such binding.

USE - The method may be used to screen for alpha 2b receptor ligands as potential drugs.

Dwg.0/4

- L8 ANSWER 4 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
- AN 1991:331010 BIOSIS
- DN BR41:27560
- TI MONOVALENT CATION AND AMILORIDE ANALOG MODULATION OF ADRENERGIC LIGAND BINDING TO THE UNGLYCOSYLATED ALPHA-2B-ADRENERGIC RECEPTOR ALPHA-2B-AR SUBTYDE
- AU WILSON A L; SEIBERT K; BRANDON S; CRAGOE E J JR; LIMBIRD L E
- CS DEP. PHARMACOL., VANDERBILT UNIV. SCH. MED, . NASHVILLE, TENN. 37232.
- SO 75TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, ATLANTA, GEORGIA, USA, APRIL 21-25, 1991. FASEB (FED AM SOC EXP BIOL) J. (1991) 5 (6), A1584.

  CODEN: FAJOEC. ISSN: 0892-6638.
- DT Conference
- FS BR; OLD
- LA English
- L8 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 2
- AN 1991:276175 BIOSIS
- DN BA92:8790
- TI MONOVALENT CATION AND AMILORIDE ANALOG MODULATION OF ADRENERGIC LIGAND BINDING TO THE UNGLYCOSYLATED ALPHA-2B-ADRENERGIC RECEPTOR SUBTYPE.
- AU WILSON A L; SEIBERT K; BRANDON S; CRAGOE E J JR; LIMBIRD L E
- CS DEP. PHARMACOL., VANDERBILT UNIV., SCH. MED., NASHVILLE, TENN. 37232-6600.
- SO MOL PHARMACOL, (1991) 39 (4), 481-486. CODEN: MOPMA3. ISSN: 0026-895X.
- FS BA; OLD
- LA English
- The unglycosylated .alpha.2B subtype of the .alpha.2-adrenergic receptor AB found in NG-108-15 cells possesses allosteric regulation of adrenergic ligand binding by monovalent cations and 5-amino-substituted amiloride analogs. These findings demonstrate that allosteric modulation of adrenergic ligand binding is not a property unique to the .alpha.2A subtype. The observation that amiloride analogs as well as monovalent cation can modulate adrenergic ligand binding to the nonglycosylated .alpha.2B subtype indicates that charge shielding due to carbohydrate moieties does not play a role in this allosteric modulation but, rather, these regulatory effects result from interactions of cations and amiloride analogs with the protein moiety of the receptor. Furthermore, the observation that both .alpha.2A and .alpha.2B receptor subtypes are modulated by amiloride analogs suggests that structural domains that are conserved between the two are likely to be involved in this allosteric modulation.
- L8 ANSWER 6 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN AN 1991:504672 BIOSIS

- DN BA92:127632
- TI PHARMACOLOGICAL CHARACTERIZATION OF RAT ALPHA-2-ADRENERGIC RECEPTORS.
- AU HARRISON J K; D'ANGELO D D; ZENG D; LYNCH K R
- CS DEP. PHARMACOLOGY, BOX 448, UNIVERSITY VIRGINIA SCH. MED., 1300 JEFFERSON PARK AVE., CHARLOTTESVILLE, VA. 22908.
- SO MOL PHARMACOL, (1991) 40 (3), 407-412. CODEN: MOPMA3. ISSN: 0026-895X.
- FS BA; OLD
- LA English
- AB We described previously the molecule characterization of a rat . alpha.2B-adrenergic receptor and

have shown also that the rat genome contains three closely related .alpha.2-adrenergic receptor genes. To characterize the ligand -binding properties of these receptor gene products, we expressed the DNAs encoding these receptors individually in COS-1 cells and studied their binding to a wide variety of typical and atypical adrenergic lgands. The receptors displayed high affinity binding to the radioligand [3H] rauwolscine, with equilibrium dissociation constants ranging from 1.4 to 28 nM. Kinetic analysis of the binding of [3H] rauwolscine to membranes from transfected cells was in very good agreement with data obtained from saturation analysis. We examined the ability of a number of agents to compete for the binding of [3] rauwolscine to the .alpha.2-adrenergic receptor-transfected membranes. Whereas one of these receptors displayed a pharmacological profile typical of an .alpha.2A-adrenergic receptor, the other two receptors showed similar pharmacological properties characteristic of an .alpha.2B-adrenergic receptor. The two .alpha.2B-like adrenergic receptors differed, howver, in the ratios of Ki values for oxymetazoline and prazosin, as well as the Ki ratio of prazosin and yohimbine. In addition, the two .alpha.2B-like adrenergic receptors had a 9-fold difference in affinity for chlorpromazine. The pharmacological characterization of the three rat .alpha.2-adrenergic receptor gene products is consistent with the known pharmacology of .alpha.2-adrenergic receptors, as documented using tissues and cell lines.

- L8 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 3
- AN 1988:503728 BIOSIS
- DN BA86:124412
- TI CLONING AND EXPRESSION OF A HUMAN KIDNEY COMPLEMENTARY DNA FOR AN ALPHA-2-ADRENERGIC RECEPTOR SUBTYPE.
- AU REGAN J W; KOBILKA T S; YANG-FENG T L; CARON M G; LEFKOWITZ R J; KOBILKA B K
- CS HOWARD HUGHES MED. INST., DUKE UNIV. MED. CENT., DURHAM, N.C. 27710.
- SO PROC NATL ACAD SCI U S A, (1988) 85 (17), 6301-6305. CODEN: PNASA6. ISSN: 0027-8424.
- FS BA; OLD
- LA English
- AB An .alpha.2-adrenergic receptor subtype has been cloned from a human kidney cDNA library using the gene for the human platelet .alpha.2-adrenergic receptor as a probe. The deduced amino acid sequence resembles the human platelet .alpha.2-adrenergic receptor and is consistent with the structure of other members of the family of guanine nucleotide-binding protein-coupled receptors. The cDNA was expressed in a mammalian cell line (COS-7), and the .alpha.2-adrenergic ligand [3H] rauwolscine was bound. Competition curve analysis with a variety of adrenergic ligands suggests that this cDNA clone represents the .alpha.2B-adrenergic receptor. The

gene for this receptor is on human chromosome 4, whereas the gene for the human platelet .alpha.2-adrenergic receptor (.alpha.2A) lies on chromosome 10. This ability to express the receptor in mammalian cells, free of other adrenergic receptor subtypes, should help in developing more selective .alpha.-adrenergic ligands.

- L8 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 1988:417541 CAPLUS
- DN 109:17541
- TI Alpha-2A and alpha-2B adrenergic receptor subtypes: antagonist binding in tissues and cell lines containing only one subtype
- AU Bylund, David B.; Ray-Prenger, Carla; Murphy, T. J.
- CS Sch. Med., Univ. Missouri, Columbia, MO, 65212, USA
- SO Journal of Pharmacology and Experimental Therapeutics (1988), 245(2), 600-7
  CODEN: JPETAB; ISSN: 0022-3565
- DT Journal
- LA English
- AB The affinities of 34 adrenergic antagonists for .alpha.2-adrenergic receptors were detd. from homogenate radioligand binding studies with [3H] yohimbine and [3H] rauwolscine. It has been suggested that .alpha.2-adrenergic receptors can be subdivided into .alpha.2A and .alpha.2B subtypes. Oxymetazoline is selective for .alpha.2A receptors, whereas prazosin is .alpha.2B selective. Five different tissues were used, each of which has only 1 of the 2 subtypes: human platelets (.alpha.2A), the HT29 cell line (.alpha.2A), human cerebral cortex (.alpha.2A), neonatal rat lung (.alpha.2B), and NG108-15 cell line (.alpha.2B). The drug affinities were highly correlated when .alpha.2A tissues were compared with .alpha.2A tissues (r = 0.97-0.98) or when the 2 .alpha.2B tissues were compared (r = 0.99). By contrast, comparison of an .alpha.2A tissue with an .alpha.2B tissue resulted in poor correlations (r = 0.77 to -0.87). Three new subtype-selective drugs were identified among these drugs on the basis of at least a 10-fold greater affinity for 1 subtype. All 3 were selective for the .alpha.2B subtype: ARC-239 (100-fold selective), chlorpromazine (18-fold selective), and 7-hydroxychlorpromazine (17-fold selective). These studies, by demonstrating distinct pharmacol. profiles for the 2 .alpha.2-adrenergic receptor subtypes in several different tissues, further support the existence and definition of these subtypes. The identification of a cell line for each subtype should be useful in the further study of .alpha.2-adrenergic receptor subtypes.

#### => d 18 3 kwic

L8 ANSWER 3 OF 8 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN DUPLICATE 1
TI Assay for alpha-2b adrenergic
receptor ligands - using membranes of cells expressing
recombinant receptor.

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Connection closed by remote host

FILE 'HOME' ENTERED AT 13:16:58 ON 10 SEP 2003

=> file biosis medline caplus wpids uspatfull

COST IN U.S. DOLLARS

FULL ESTIMATED COST

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FILE 'USPATFULL' ENTERED AT 13:17:21 ON 10 SEP 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

\*\*\* YOU HAVE NEW MAIL \*\*\*

=> s saporin and imiloxan

L1 4 SAPORIN AND IMILOXAN

=> s l1 and adrenergic receptor?

L2 0 L1 AND ADRENERGIC RECEPTOR?

=> s saporin and adrenergic receptor

L3 189 SAPORIN AND ADRENERGIC RECEPTOR

=> s 13 and prazosin

L4 2 L3 AND PRAZOSIN

=> d l4 bib abs 1-2

L4 ANSWER 1 OF 2 MEDLINE on STN

AN 2002147402 MEDLINE

DN 21676103 PubMed ID: 11818770

TI Isoflurane and nociception: spinal alpha2A adrenoceptors mediate antinociception while supraspinal alpha1 adrenoceptors mediate pronociception.

AU Kingery Wade S; Agashe Geeta S; Guo Tian Z; Sawamura Shigehito; Davies M Frances; Clark J David; Kobilka Brian K; Maze Mervyn

CS Department of Anesthesia, Stanford University, Stanford, California, USA.

NC 30232

SO ANESTHESIOLOGY, (2002 Feb) 96 (2) 367-74. Journal code: 1300217. ISSN: 0003-3022.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 200204

ED Entered STN: 20020308 Last Updated on STN: 20020404 Entered Medline: 20020402

AB BACKGROUND: The authors recently established that the analgesic actions of the inhalation anesthetic nitrous oxide were mediated by noradrenergic

bulbospinal neurons and spinal alpha2B adrenoceptors. They now determined whether noradrenergic brainstem nuclei and descending spinal pathways are responsible for the antinociceptive actions of the inhalation anesthetic isoflurane, and which alpha adrenoceptors mediate this effect. METHODS: After selective lesioning of noradrenergic nuclei by intracerebroventricular application of the mitochondrial toxin saporin coupled to the antibody directed against dopamine beta hydroxylase (DbetaH-saporin), the antinociceptive action of isoflurane was determined. Antagonists for the alphal and alpha2 adrenoceptors were injected at spinal and supraspinal sites in intact and spinally transected rats to identify the noradrenergic pathways mediating isoflurane antinociception. Null mice for each of the three alpha2-adrenoceptor subtypes (alpha2A, alpha2B, and alpha2C) and their wild-type cohorts were tested for their antinociceptive response to isoflurane. RESULTS: Both DbetaH-saporin treatment and chronic spinal transection enhanced the antinociceptive effects of isoflurane. The alphal-adrenoceptor antagonist prazosin also enhanced isoflurane antinociception at a supraspinal site of action. alpha2-adrenoceptor antagonist yohimbine inhibited isoflurane antinociception, and this effect was mediated by spinal alpha2 adrenoceptors. Null mice for the alpha2A-adrenoceptor subtype showed a reduced antinociceptive response to isoflurane. CONCLUSIONS: The authors suggest that, at clinically effective concentrations, isoflurane can modulate nociception via three different mechanisms: (1) a pronociceptive effect requiring descending spinal pathways, brainstem noradrenergic nuclei, and supraspinal alphal adrenoceptors; (2) an antinociceptive effect requiring descending noradrenergic neurons and spinal alpha2A adrenoceptors; and (3) an antinociceptive effect mediated within the spinal cord for which no role for adrenergic mechanism has been found.

```
L4
     ANSWER 2 OF 2 USPATFULL on STN
AN
       2003:231628 USPATFULL
TI
       Polymeric immunoglobulin fusion proteins that target low-affinity
       fcyreceptors
       Arnason, Barry G. W., Chicago, IL, UNITED STATES
IN
       Jensen, Mark A., Chicago, IL, UNITED STATES
       White, David M., Chicago, IL, UNITED STATES
PA
       The University of Chicago (U.S. corporation)
PΙ
       US 2003161826
                          A1
                               20030828
ΑI
       US 2002-96521
                          A1
                               20020311 (10)
PRAI
       US 2001-274392P
                           20010309 (60)
DT
       Utility
FS
       APPLICATION
       Mark B. Wilson, Fulbright & Jaworski L.L.P., Suite 2400, 600 Congress
LREP
       Avenue, Austin, TX, 78701
CLMN
       Number of Claims: 82
ECL
       Exemplary Claim: 1
DRWN
       7 Drawing Page(s)
LN.CNT 4867
AB
       The present invention concerns a family of nucleic acids, polypeptides
       and cloning vectors which direct expression of fusion proteins that can
       mimic aggregated IgG (AIG) and immune complex function with respect to
       their interactions with Fc.gamma.R and which allow for the inclusion and
       targeting of a second protein domain to cells expressing Fc.gamma.R.
       This was accomplished by expressing multiple linear copies of the hinge
       and CH2 domains (HCH2) of human IgG.sub.1 fused to the framework region
      of human IgG.sub.1. Convenient restriction sites allow for the facile
       introduction of additional amino-terminal domains. Methods for treating
      patients using fusion proteins are also disclosed. The HCH2 polymers
      described here represent a new strategy in the design of recombinant
```

proteins for the therapeutic targeting of Fc.gamma.R in autoimmune

disorders.

```
=> s l1 and adren? (4a) receptor?
             0 L1 AND ADREN? (4A) RECEPTOR?
=> s therap? and adren? (4a) receptor?
         13375 THERAP? AND ADREN? (4A) RECEPTOR?
=> s 16 and alpha? (5a) subtype?
           665 L6 AND ALPHA? (5A) SUBTYPE?
=> s 17 and target?
L8
           329 L7 AND TARGET?
=> s 18 and target? (5a) bind? (5a) alpha?
             1 L8 AND TARGET? (5A) BIND? (5A) ALPHA?
=> d 19 bib abs
L9
     ANSWER 1 OF 1 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
     2002-619081 [66]
AN
                        WPIDS
DNC
     C2002-174840
ΤI
     Agent for treating pain such as neuropathic pain comprises a
     therapeutic component and a targeting component.
DC
     B04 B05
TN
     AOKI, K R; GIL, D W
PΑ
     (ALLR) ALLERGAN SALES INC
CYC
    96
PΤ
     WO 2002053177 A2 20020711 (200266)* EN
                                               76p
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
            SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
ADT
    WO 2002053177 A2 WO 2001-US48651 20011214
PRAI US 2000-751053
                      20001229
AN
     2002-619081 [66]
                        WPIDS
     WO 200253177 A UPAB: 20021014
AB
     NOVELTY - An agent comprises a therapeutic component (a) and a
     targeting component (b), where the targeting component
     selectively binds at the alpha -2B/ alpha -C
     adrenergic receptor subtype as compare to the
     alpha -2A adrenergic receptor subtype
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
     making the agent involving producing a polypeptide from a gene having
     codes for at least one component of the agent.
          ACTIVITY - Analgesic; Cytostatic; Antiinflammatory.
     MECHANISM OF ACTION - alpha -2B adrenergic receptor binder; Alpha-2B/alpha-2C adrenergic receptor binder.
          USE - The novel therapeutic agent is used for treating pain
     such as chronic pain, visceral pain, neuropathic pain, referred pain and
     allodynia type pain (persisting from 2 - 27 months) without affecting
     acute pain sensation or tactile sensation such as chronic pain, visceral
     pain, neuropathic pain, referred pain and allodynia type pain (claimed)
     and for treating pain associated with cancer and irritable bowel syndrome.
          ADVANTAGE - (b) selectively binds at the alpha -2B or alpha -2B/
     alpha 2B- alpha -2C adrenergic
     receptor subtypes(s) as compared to the alpha
     -2A adrenergic receptor subtype. (a)
```

inactivates cellular ribosomes. Dwg.0/1

=>

#### => d his (FILE 'HOME' ENTERED AT 13:16:58 ON 10 SEP 2003) FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 13:17:21 ON 10 SEP 2003 4 S SAPORIN AND IMILOXAN L1 L2 0 S L1 AND ADRENERGIC RECEPTOR? L3 189 S SAPORIN AND ADRENERGIC RECEPTOR L4 2 S L3 AND PRAZOSIN L5 0 S L1 AND ADREN? (4A) RECEPTOR? 13375 S THERAP? AND ADREN? (4A) RECEPTOR? L6 L7 665 S L6 AND ALPHA? (5A) SUBTYPE? L8 329 S L7 AND TARGET? 1 S L8 AND TARGET? (5A) BIND? (5A) ALPHA? L9 => s 18 and target? (7a) alpha? T.10 122 L8 AND TARGET? (7A) ALPHA? => s 110 and prazosin 66 L10 AND PRAZOSIN => s 111 and arc 239 2 L11 AND ARC 239 L12=> d l12 bib abs 1-2 L12 ANSWER 1 OF 2 USPATFULL on STN AN 2003:165870 USPATFULL Alpha-2 adrenergic receptor polymorphisms TТ IN Small, Kersten M., Cincinnati, OH, UNITED STATES Liggett, Stephen B., Cincinnati, OH, UNITED STATES PΤ US 2003113725 A1 20030619 AΤ US 2001-1073 20011101 (10) A1 Continuation-in-part of Ser. No. US 2000-551744, filed on 17 Apr 2000, RLI PENDING Continuation-in-part of Ser. No. US 2000-636259, filed on 10 Aug 2000, PENDING Continuation-in-part of Ser. No. US 2000-692077, filed on 19 Oct 2000, PENDING PRAI WO 2001-US12575 20010417 DТ Utility FS APPLICATION LREP Holly D. Kozlowski, Dinsmore & Shohl LLP, 1900 Chemed Center, 255 East Fifth Street, Cincinnati, OH, 45202 CLMN Number of Claims: 17 ECL Exemplary Claim: 1 15 Drawing Page(s) DRWN LN.CNT 4834 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention includes polymorphisms in nucleic acids encoding AB the alpha-2B, alpha-2A, and alpha-2C adrenergic receptor and expressed alpha-2B, alpha-2A and alpha-2C adrenergic receptor molecule. The invention also pertains to methods and molecules for detecting such polymorphisms. The

invention further pertains to the use of such molecules and methods in

the diagnosis, prognosis, and treatment of diseases such as

cardiovascular and central nervous system disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 2 OF 2 USPATFULL on STN .
AN 2001:139296 USPATFULL

```
ΤI
       DNA molecule encoding a variant alpha2B-adrenoceptor protein, and uses
       thereof
IN
       Snapir, Amir, Turku, Finland
       Heinonen, Paula, Turku, Finland
       Alhopuro, Pia, Turku, Finland
       Karvonen, Matti, Turku, Finland
       Koulu, Markku, Turku, Finland
       Pesonen, Ullamari, Turku, Finland
       Scheinin, Mika, Naantali, Finland
       Salonen, Jukka T., Jannevirta, Finland
       Tuomainen, Tomi-Pekka, Kuopio, Finland
       Lakka, Timo A., Kuopio, Finland
       Nyyssonen, Kristiina, Kuopio, Finland
       Salonen, Riitta, Jannevirta, Finland
       Kauhanen, Jussi, Kuopio, Finland
       Valkonen, Veli-Pekka, Kuopio, Finland
PA
       OY Juvantia Pharma Ltd., Turku, Finland (non-U.S. corporation)
PΙ
       US 2001016338
                          A1
                               20010823
ΑI
       US 2001-825923
                          A1
                               20010405 (9)
       Division of Ser. No. US 1999-422985, filed on 22 Oct 1999, PENDING
RLI
DT
       Utility
FS
       APPLICATION
       ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701,
LREP
       EAST TOWER, WASHINGTON, DC, 20004
CLMN
       Number of Claims: 26
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 989
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       This invention relates to a DNA sequence comprising a nucleotide
       sequence encoding a variant .alpha..sub.2B-adrenoceptor protein and to
       said variant .alpha..sub.2B-adrenoceptor protein as well as a method for
       screening a subject to determine if said subject is a carrier of a
       variant gene that encodes said variant .alpha..sub.2B-adrenoceptor.
       Further this invention relates to a method for treating a mammal
       suffering from vascular contraction of coronary arteries, said method
       comprising the step of administering a selective .alpha..sub.2B-
       adrenoceptor antagonist to said mammal and to transgenic animals
       comprising a human DNA molecule encoding human .alpha..sub.2B-
       adrenoceptor or said variant .alpha..sub.2B-adrenoceptor.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

```
=> s 119 and alpha (3a) 2B
            11 L19 AND ALPHA (3A) 2B
=> dup rem 120
PROCESSING COMPLETED FOR L20
             11 DUP REM L20 (0 DUPLICATES REMOVED)
=> d 121 bib abs 1-11
     ANSWER 1 OF 11 USPATFULL on STN
L21
AN
       2003:140965 USPATFULL
       Arthroscopic irrigation solution and method for peripheral
TT
       vasoconstriction and inhibition of pain and inflammation
       Demopulos, Gregory A., Mercer Island, WA, UNITED STATES
IN
       Palmer, Pamela Pierce, San Francisco, CA, UNITED STATES
       Herz, Jeffery M., Mill Creek, WA, UNITED STATES
PA
       Omeros Corporation (U.S. corporation)
ΡI
       US 2003096807
                          A1
                               20030522
ΑI
       US 2002-138192
                               20020501 (10)
                          A1
RLI
       Continuation-in-part of Ser. No. US 2001-839633, filed on 20 Apr 2001,
       PENDING Continuation-in-part of Ser. No. WO 1999-US24672, filed on 20
       Oct 1999, UNKNOWN
PRAI
       US 1998-105029P
                           19981020 (60)
DT
       Utility
FS
       APPLICATION
LREP
       OMEROS MEDICAL SYSTEMS, INC., 1420 FIFTH AVENUE, SUITE 2675, SEATTLE,
       WA, 98101
       Number of Claims: 105
CLMN
ECL
       Exemplary Claim: 1
DRWN
       3 Drawing Page(s)
LN.CNT 3576
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method and solution for perioperatively inhibiting a variety of
AB
       pain and inflammation processes during arthroscopic procedures.
       The solution preferably includes a vasoconstrictor that exhibits
       alpha-adrenergic activity and one or more additional pain and
       inflammation inhibitory agents at dilute concentration in a physiologic
       carrier, such as saline or lactated Ringer's solution. The solution is
       applied by continuous irrigation of a wound during a surgical procedure
       for peripheral vasoconstriction and inhibition of pain and/or
       inflammation while avoiding undesirable side effects associated with
       systemic application of larger doses of the agents.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 2 OF 11 USPATFULL on STN
L21
       2003:127747 USPATFULL
AN
TI
       Arthroscopic irrigation solution and method for peripheral
       vasoconstriction and inhibition of pain and inflammation
IN
       Demopulos, Gregory A., Mercer Island, WA, UNITED STATES
       Palmer, Pamela Pierce, San Francisco, CA, UNITED STATES
       Herz, Jeffery M., Mill Creek, WA, UNITED STATES
PA
       Omeros Corporation (U.S. corporation)
PT
       US 2003087962
                          A1
                               20030508
AΙ
       US 2002-138193
                          A1
                               20020501 (10)
       Continuation-in-part of Ser. No. US 2001-839633, filed on 20 Apr 2001,
RLI
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PENDING Continuation-in-part of Ser. No. WO 1999-US24672, filed on 20

19981020 (60)

Oct 1999, UNKNOWN

US 1998-105029P

PRAI

09567863 DTUtility FS APPLICATION LREP OMEROS MEDICAL SYSTEMS, INC., 1420 FIFTH AVENUE, SUITE 2675, SEATTLE, CLMN Number of Claims: 54 Exemplary Claim: 1 ECL DRWN 3 Drawing Page(s) LN.CNT 3339 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A method and solution for perioperatively inhibiting a variety of pain and inflammation processes during arthroscopic procedures. The solution preferably includes a vasoconstrictor that demonstrates substantial agonist activity at alpha adrenergic receptors and that is selected for peripheral (local) vasoconstriction and one or more additional pain and inflammation inhibitory agents at dilute concentration in a physiologic carrier, such as saline or lactated Ringer's solution. The solution is applied by continuous irrigation of a wound during a surgical procedure for peripheral vasoconstriction and inhibition of pain and/or inflammation while avoiding undesirable side effects associated with systemic application of larger

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

doses of the agents.

L21 ANSWER 3 OF 11 USPATFULL on STN 2003:51589 USPATFULL ANTΤ Yohimbine dimers exhibiting binding selectivities for alpha2 adrenergic receptors Miller, Duane D., Germantown, TN, UNITED STATES IN Zheng, Weiping, Baltimore, MD, UNITED STATES Moore, Bob M., II, Nesbit, MS, UNITED STATES Mustafa, Suni, Memphis, TN, UNITED STATES PΤ US 2003036547 **A1** 20030220 US 2002-106521 20020325 (10) ΑI A1 US 2001-278181P PRAI 20010323 (60) DTUtility FS APPLICATION Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, LREP Rochester, NY, 14603-1051 Number of Claims: 48 CLMN ECLExemplary Claim: 1 DRWN . 1 Drawing Page(s) LN.CNT 1401 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates to yohimbine dimer compounds,

pharmaceutical compositions containing such dimer compounds, methods of making such dimer compounds, and uses thereof. The yohimbine dimer compounds include compounds of formula (I): ##STR1##

where R is any linker molecule which affords a yohimbine dimer that has activity as an .alpha..sub.2-AR antagonist and has selectivity for an .alpha..sub.2-AR subtype over another .alpha..sub.2-AR subtype.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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ANSWER 4 OF 11 CAPLUS COPYRIGHT 2003 ACS on STN
L21
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2002:754163 CAPLUS AN

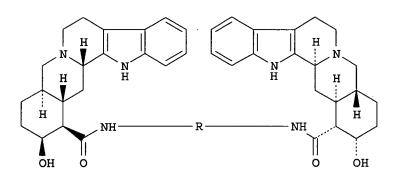
DN 137:263224

ΤI Yohimbine dimers exhibiting binding selectivities for . alpha.2 adrenergic receptors

TN Miller, Duane D.; Zheng, Weiping; Moore, Robert M., II; Mustafa, Suni

The University of Tennessee Research Corporation, USA PΑ

```
SO
     PCT Int. Appl., 43 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO. DATE
PΙ
     WO 2002076399
                       A2
                            20021003
                                           WO 2002-US9267
                                                             20020325
     WO 2002076399
                       A3
                            20021114
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003036547
                      A1
                            20030220
                                          US 2002-106521 20020325
PRAI US 2001-278181P
                       Р
                            20010323
     MARPAT 137:263224
os
GΙ
```



AB The yohimbine dimer compds. I (R = linker mol. having a length of 2.5 .ANG. to about 45 .ANG.) were prepd. as an .alpha.2-AR antagonist and has selectivity of an .alpha.2 -AR subtype over another .alpha.2-AR subtype. Thus, yohimbinic acid was treated with H2NCH2CH2NH2 to give I (R = CH2CH2).HCl. The binding affinity (Ki) of I (R = CH2CH2).HCl on human .alpha.2a-AR was 26.4 .+-. 7.3 and .alpha.2b-AR was 1510 .+-. 262 with a .alpha.2a/.alpha.2b selectivity of 57.2.

Ι

```
ANSWER 5 OF 11 USPATFULL on STN
L21
       2002:228338 USPATFULL
AN
ΤI
       Piperidine-piperazine ligands for neurotransmitter receptors
IN
       Persons, Paul E., Westborough, MA, UNITED STATES
       Radeke, Heike, South Grafton, MA, UNITED STATES
PΤ
       US 2002123499
                          A1
                                20020905
AΙ
       US 2002-87609
                          A1
                                20020301 (10)
PRAI
       US 2001-272966P
                           20010302 (60)
DT
       Utility
FS
       APPLICATION
LREP
       FOLEY HOAG LLP, PATENT GROUP, 155 SEAPORT BOULEVARD, BOSTON, MA, 02110
CLMN
       Number of Claims: 83
```

ECL Exemplary Claim: 1 DRWN 6 Drawing Page(s)

LN.CNT 2808

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

One aspect of the present invention relates to piperidine-piperazine compounds. A second aspect of the present invention relates to the use of the piperidine-piperazine compounds as ligands for various mammalian cellular receptors or transporters or both, including dopamine, serotonin or norepinephrine receptors or transporters, any combination of them, or all of them. The compounds of the present invention will find use in the treatment of numerous ailments, conditions and diseases which afflict mammals, including but not limited to addiction, anxiety, depression, sexual dysfunction, hypertension, migraine, Alzheimer's disease, obesity, emesis, psychosis, analgesia, schizophrenia, Parkinson's disease, restless leg syndrome, sleeping disorders, attention deficit hyperactivity disorder, irritable bowel syndrome, premature ejaculation, menstrual dysphoria syndrome, urinary incontinence, inflammatory pain, neuropathic pain, Lesche-Nyhane disease, Wilson's disease, and Tourette's syndrome. An additional aspect of the present invention relates to the synthesis of combinatorial libraries of the piperidine-piperazine compounds, and the screening of those libraries for biological activity, e.g., in assays based on dopamine receptors or transporters or both.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 6 OF 11 USPATFULL on STN

AN 2002:99464 USPATFULL

TI Selective anxiolytic therapeutic agents

IN Hanns, Mohler, Meilen, SWITZERLAND

Rudolph, Uwe, Zurich, SWITZERLAND

PI US 2002052365 A1 20020502

AI US 2001-972799 A1 20011005 (9)

PRAI US 2000-238189P 20001005 (60)

DT Utility

FS APPLICATION

LREP PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

CLMN Number of Claims: 18

ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)

LN.CNT 1427

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to selective anxiolytic therapeutic agents which allow for the treatment of anxiety-related disorders with less severe side-effects, such as sedative and amnesic effects, and in particular, dependence liability. These selective agents selectively or preferentially bind the a2-GABA.sub.A receptor, as compared to the .alpha.1-GABA.sub.A receptor. Alternatively, these selective agents selectively or preferentially activate the .alpha.2-GABA.sub.A receptor, as compared to the .alpha.1-GABA.sub.A receptor. The present invention also relates to methods for identifying such selective anxiolytic therapeutic agents. The present invention also relates to methods for identifying a molecule that decreases binding of a benzodiazepine to the .alpha.1-GABA.sub.A receptor, but not substantially to the .alpha.2-GABA.sub.A receptor.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 7 OF 11 USPATFULL on STN

AN 2002:48606 USPATFULL

TI Irrigation solution and method for inhibition of **pain** and inflammation

GRANTED

```
IN
       Demopulos, Gregory A., Mercer Island, WA, UNITED STATES
       Pierce-Palmer, Pamela, San Francisco, CA, UNITED STATES
       Herz, Jeffrey M., Mill Creek, WA, UNITED STATES
PA
       Omeros Medical Systems (U.S. corporation)
PΙ
       US 2002028798
                                20020307
                          Α1
AΙ
       US 2001-839633
                          A1
                                20010420 (9)
RLI
       Continuation-in-part of Ser. No. WO 1999-US24625, filed on 20 Oct 1999,
       UNKNOWN Continuation-in-part of Ser. No. WO 1999-US24672, filed on 20
       Oct 1999, UNKNOWN Continuation-in-part of Ser. No. WO 1999-US24558,
       filed on 20 Oct 1999, UNKNOWN Continuation-in-part of Ser. No. WO
       1999-US24557, filed on 20 Oct 1999, UNKNOWN Continuation-in-part of Ser.
       No. WO 1999-US26330, filed on 5 Nov 1999, UNKNOWN Continuation-in-part
       of Ser. No. US 1998-72913, filed on 4 May 1998, UNKNOWN Continuation of
       Ser. No. US 1996-670699, filed on 26 Jun 1996, UNKNOWN
       Continuation-in-part of Ser. No. WO 1995-US16028, filed on 12 Dec 1995,
       UNKNOWN Continuation-in-part of Ser. No. US 1994-353775, filed on 12 Dec
       1994, ABANDONED
PRAI
       US 1998-105026P
                           19981020 (60)
                           19981020 (60)
       US 1998-105029P
       US 1998-105044P
                           19981020 (60)
       US 1998-105166P
                           19981021 (60)
       US 1998-107256P
                           19981105 (60)
DT
       Utility
FS
       APPLICATION
LREP
       CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC, 1420 FIFTH AVENUE, SUITE
       2800, SEATTLE, WA, 98101-2347
       Number of Claims: 19
CLMN
ECL
       Exemplary Claim: 1
DRWN
       12 Drawing Page(s)
LN.CNT 4713
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method and solution for perioperatively inhibiting a variety of
       pain and inflammation processes at wounds from general surgical
       procedures including oral/dental procedures. The solution preferably
       includes at least one pharmacological agent selected from the group
       consisting of a mitogen-activated protein kinase (MAPK) inhibitor, an
       .alpha..sub.2-receptor agonist, a neuronal nicotinic acetylcholine
       receptor agonist, a cyclooxygenase-2 (COX-2) inhibitor, a soluble
       receptor and mixtures thereof, and optionally additional multiple
       pain and inflammation inhibitory agents at dilute concentration
       in a physiologic carrier, such as saline or lactated Ringer's solution.
       The solution is applied by continuous irrigation of a wound during a
       surgical procedure for preemptive inhibition of pain and while
       avoiding undesirable side effects associated with oral, intramuscular,
       subcutaneous or intravenous application of larger doses of the agents.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 8 OF 11 USPATFULL on STN
L21
AN
       2002:209546 USPATFULL
TI
       Arylhydantoin derivatives and uses thereof
TN
       Hoffman, Jacob M., Lansdale, PA, United States
       Bock, Mark G., Hatfield, PA, United States
       DiPardo, Robert M., Lansdale, PA, United States
       Payne, Linda S., Lansdale, PA, United States
       Patane, Michael A., Harleysville, PA, United States
PA
       Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PΙ
       US 6436962
                          В1
                               20020820
       US 2000-671518
AΙ
                               20000927 (9)
PRAI
       US 1999-156753P
                           19990930 (60)
DT
       Utility
FS
```

EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Patel, Sudhaker LREP Brown, Baerbel R., Walton, Kenneth R., Fitch, Catherine D. CLMN Number of Claims: 31 ECL Exemplary Claim: 1 DRWN 0 Drawing Figure(s); 0 Drawing Page(s) LN.CNT 2793 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Arylhydantoin derivatives and their pharmaceutically acceptable salts AB are disclosed. The synthesis of these compounds and their use as alpha la adrenergic receptor antagonists is also described. One application of these compounds is in the treatment of benign prostatic hyperplasia. These compounds are typically selective in their ability to relax smooth muscle tissue enriched in the alpha la receptor subtype without at the same time inducing hypotension. One such tissue is found surrounding the urethral lining. Therefore, one utility of the instant compounds is to provide acute relief to males suffering from benign prostatic hyperplasia, by permitting less hindered urine flow. Another utility of the instant compounds is provided by combination with a human 5-alpha reductase inhibitory compound, such that both acute and chronic relief from the effects of benign prostatic hyperplasia can be achieved. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 9 OF 11 USPATFULL on STN L21 AN 2001:67672 USPATFULL TI Dihydropyrimidines and uses thereof IN Nagarathnam, Dhanapalan, Ramsey, NJ, United States Wong, Wai C., Newark, NJ, United States Miao, Shou Wu, Edison, NJ, United States Gluchowski, Charles, Wayne, NJ, United States Patane, Michael A., Harleysville, PA, United States PA Synaptic Pharmaceutical Corporation, Paramus, NJ, United States (U.S. corporation) US 6228861 PΙ 20010508 В1 WO 9717969 19970522 US 1998-68782 AΙ 19981110 (9) WO 1996-US18573 19961115 19981110 PCT 371 date 19981110 PCT 102(e) date RLI Continuation-in-part of Ser. No. WO 1995-US15025, filed on 16 Nov 1995 Continuation-in-part of Ser. No. US 1996-648770, filed on 16 May 1996, now abandoned DTUtility FS Granted Primary Examiner: Shah, Mukund J.; Assistant Examiner: Rao, Deepak R. EXNAM LREP White, John P. Cooper & Dunham LLP CLMN Number of Claims: 21 ECL Exemplary Claim: 1 No Drawings DRWN LN.CNT 2014 CAS INDEXING IS AVAILABLE FOR THIS PATENT. This invention is directed to dihydropyrimidine compounds which are AB selective antagonists for human .alpha..sub.1A receptors. This invention is also related to uses of these compounds for lowering intraocular pressure, inhibiting cholesterol synthesis, relaxing lower urinary tract tissue, the treatment of benign prostatic hyperplasia, impotency, cardiac arrhythmia and for the treatment of any disease where the antagonism of the .alpha..sub.1A receptor may be useful. The invention further provides a pharmaceutical composition comprising a therapeutically effective amount of the above-defined compounds and a

pharmaceutically acceptable carrier.

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 10 OF 11 USPATFULL on STN
       2001:4740 USPATFULL
AN
ΤI
       Dihydropyrimidines and uses thereof
IN
       Nagarathnam, Dhanapalan, Ramsey, NJ, United States
       Wong, Wai C., Newark, NJ, United States
       Miao, Shou Wu, Edison, NJ, United States
       Patane, Michael A., Harleysville, PA, United States
       Gluchowski, Charles, Danville, CA, United States
PA
       Synaptic Pharmaceutical Corporation, Paramus, NJ, United States (U.S.
       corporation)
ΡI
       US 6172066
                           R1
                                20010109
AΤ
       US 1997-858061
                                19970516 (8)
PRAT
       US 1996-17582P
                            19960516 (60)
       Patent
DT
FS
       Granted
       Primary Examiner: Shah, Mukund J.; Assistant Examiner: Balasuhramanian,
EXNAM
       Vankataraman
       White, John P.Cooper & Dunham LLP
LREP
CLMN
       Number of Claims: 19
ECL
       Exemplary Claim: 1
       No Drawings
LN.CNT 1732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       This invention is directed to dihydropyrimidine compounds which are
       selective antagonists for human .alpha..sub.1A receptors. This invention
       is also related to uses of these compounds for lowering intraocular
       pressure, inhibiting cholesterol synthesis, relaxing lower urinary tract
       tissue, the treatment of benign prostatic hyperplasia, impotency,
       cardiac arrhythmia and for the treatment of any disease where the
       antagonism of the .alpha..sub.1A receptor may be useful. The invention
       further provides a pharmaceutical composition comprising a
       therapeutically effective amount of the above-defined compounds and a
       pharmaceutically acceptable carrier.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 11 OF 11 USPATFULL on STN
AN
       2000:54133 USPATFULL
       Alpha la adrenergic receptor antagonists
ΤI
       Patane, Michael A., Harleysville, PA, United States
IN
       Bock, Mark G., Hatfield, PA, United States
       Nagarathnam, Dhanapalan, Ramsey, NJ, United States
       Lagu, Bharat, Maywood, NJ, United States
       Wong, Wai C., Newark, NJ, United States
       Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PA
       Synaptic Pharmaceutical Corp., Paramus, NJ, United States (U.S.
       corporation)
PΤ
       US 6057350
                               20000502
ΑI
       US 1998-98781
                               19980617 (9)
       US 1997-50136P
PRAI
                           19970618 (60)
DT
       Utility
       Granted
      Primary Examiner: Stockton, Laura L.
EXNAM
       Walton, Kenneth R., Winokur, Melvin
LREP
       Number of Claims: 24
CLMN
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 2143
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

This invention relates to certain novel compounds and derivatives AB thereof, their synthesis, and their use as alpha la adrenergic receptor antagonists. One application of these compounds is in the treatment of benign prostatic hyperplasia. These compounds are selective in their ability to relax smooth muscle tissue enriched in the alpha la receptor subtype without at the same time inducing hypotension. One such tissue is found surrounding the urethral lining. Therefore, one utility of the instant compounds is to provide acute relief to males suffering from benign prostatic hyperplasia, by permitting less hindered urine flow. Another utility of the instant compounds is provided by combination with a human 5-alpha reductase inhibitory compound, such that both acute and chronic relief from the effects of benign prostatic hyperplasia are achieved.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### => d his

(FILE 'HOME' ENTERED AT 13:16:58 ON 10 SEP 2003)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 13:17:21 ON

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10 SEP 2003
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L1
              0 S L1 AND ADRENERGIC RECEPTOR?
L2
            189 S SAPORIN AND ADRENERGIC RECEPTOR
L3
L4
              2 S L3 AND PRAZOSIN
              0 S L1 AND ADREN? (4A) RECEPTOR?
L5
          13375 S THERAP? AND ADREN? (4A) RECEPTOR?
L6
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L7
            329 S L7 AND TARGET?
L8
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L11
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L12
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L13
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L15
            186 S L13 AND BIND? (4A) ALPHA? (4A) RECEPTOR?
L16
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L17
             14 S L17 NOT L14
L18
             14 DUP REM L18 (0 DUPLICATES REMOVED)
L19
L20
             11 S L19 AND ALPHA (3A) 2B
             11 DUP REM L20 (0 DUPLICATES REMOVED)
L21
```

=>